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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|---|----------------|----------------------|------------------------|-------------------------|--|
| 10/653,508 | 09/02/2003 | Andrew M. Vesel | 03CR329/KE | 3864 | |
| 75 | 590 12/28/2004 | | EXAM | INER | |
| Attention: Kyle Eppele | | | A, MINH D | | |
| Rockwell Collins, Inc. 400 Collins Rd., NE | | | ART UNIT | PAPER NUMBER | |
| Cedar Rapids, 1A 52498 | | | 2821 | | |
| | | | DATE MAILED: 12/28/200 | DATE MAILED: 12/28/2004 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | |
|--|--|--|--|--|--|
| | 10/653,508 | VESEL ET AL. | | | |
| Office Action Summary | Examiner | Art Unit | | | |
| | Minh D A | 2821 | | | |
| The MAILING DATE of this communication app Period for Reply | ears on the cover sheet with the c | orrespondence address | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.1: after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | 36(a). In no event, however, may a reply be timed within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE | nely filed s will be considered timely. the mailing date of this communication. O (35 U.S.C. § 133). | | | |
| Status | | | | | |
| 1)⊠ Responsive to communication(s) filed on <u>02 Sectors</u> | eptember 2003. | | | | |
| 2a) ☐ This action is FINAL . 2b) ☑ This | action is non-final. | | | | |
| 3) Since this application is in condition for allowar | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | |
| Disposition of Claims | | | | | |
| 4) ☐ Claim(s) 1-22 is/are pending in the application. 4a) Of the above claim(s) is/are withdray 5) ☐ Claim(s) 10-22 is/are allowed. 6) ☐ Claim(s) 1-9 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or | vn from consideration. | | | | |
| Application Papers | | , | | | |
| 9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) accomplicated any not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Example 11. | epted or b) objected to by the Eddrawing(s) be held in abeyance. See ion is required if the drawing(s) is obj | e 37 CFR 1.85(a). ected to. See 37 CFR 1.121(d). | | | |
| Priority under 35 U.S.C. § 119 | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | |
| Attachment(s) | | | | | |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal Pa | | | | |

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 2. Claims 1-4, 6 and 9 are rejected under 35 U.S.C. 102(b) as being unpatentable by Kuntman et al (US 6,313,783).

Regarding claim 1, Kuntman discloses an surveillance system for an aircraft, comprising: a first antenna (104a) comprising a four radiating element antenna configured for electrical coupling to: a first air traffic control transponder (112)', a first traffic alter and collision avoidance system (116); a second antenna (104b) comprising a single radiating element antenna configured for electrical coupling to a second air traffic control transponder (112)', a first mounting interface (204) configured for coupling the first antenna to the aircraft (1); a second mounting interface (206) configured for coupling the second antenna to the aircraft; wherein the mounting interface of the first antenna has a size and a shape corresponding to a size and shape of the mounting interface of the second antenna. See figures 8 and 10, col.16, lines 7-67 to col.23, lines 1-53.

Regarding claim 2, Kuntman discloses wherein the first mounting interface (204) is a first base plate and the second mounting interface (206) is a second base plate.

See figure 10.

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Regarding claim 3, Kuntman discloses wherein the second antenna further comprises a plurality of non-functional elements configured for electrical coupling to a load. See figures 2-10.

Regarding claim 4, Kuntman discloses wherein the first antenna and the second antenna each are an L-band antenna. See figure 2, col.10, lines 3-43.

Regarding claim 6, Kuntman discloses wherein the second antenna is configured to send a signal representative of at least one of the position and the altitude of the aircraft. See figures 2-8, col.10, lines 2-67 to col.20, lines 1-23.

Regarding claim 9, Kuntman discloses wherein the second antenna comprises an upper antenna and a lower antenna. See figure 10.

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 5, 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Kuntman et al (US 6,313,783).

Regarding claims 5, 7-8, Kuntman discloses the claimed invention except for a rectangular shape or the base plate of antenna has a length of at least 11 inches or 6 inches. It would have been an obvious matter of design choice to employ a rectangular shape or the base plate of antenna has a length of at least 11 inches or 6 inches since

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such a modification would have involved a mere change in the size of a component and shape. A change in size and shape are generally recognized as being within the level of ordinary skill in the art. Therefore, they appear that the invention would not provide any improvement but merely apply the invention in different presentation.

Allowable Subject Matter

Claims 10-22 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not teach that, a first weather detection and avoidance radar system; wherein the first air traffic control transponder and the first traffic alert and collision avoidance system are configured for electrical coupling to a four radiating element antenna', a second cabinet configured for housing: a second air traffic control transponder; a second traffic alert and collision avoidance system', a second terrain awareness and warning system', a second weather detection and avoidance radar system', wherein the second cabinet includes at least the second air traffic control transponder and is configured for electrical coupling to a single radiating element antenna in combination with all limitations recited in independent claims 10 and 17.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hudson et al (US 6,545,631) and Johnson et al. (US 6,788,245) are cited to show a surveillance receiver.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Minh A whose telephone number is (571) 272-1817. The examiner can normally be reached on M-F (5:30 –2:30 PM).

If attempts to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and (703) 872-9319 for final communications.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (571) 272-1553.

Hoanganh Le Primary Examiner

Examiner

Minh A

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8/26/04